

Project Design Phase-II Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID35249
Project Name	Personal Expense Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

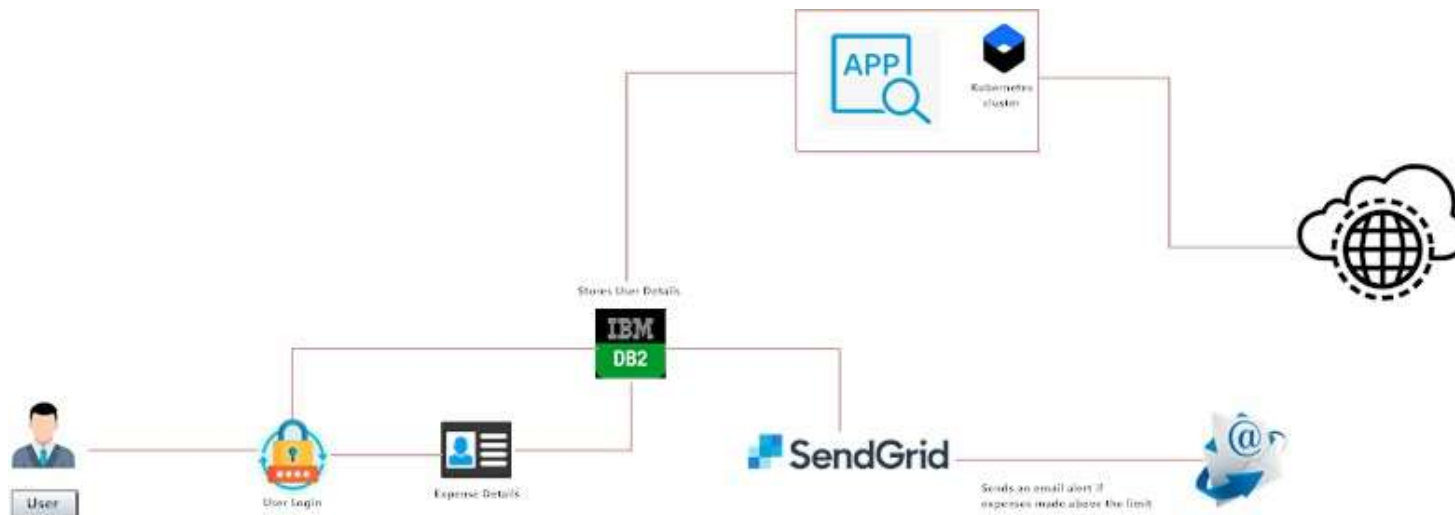


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Backend Process – Web page route, DbConnection	Python Flask
3.	Application Logic-2	Docker containers	Docker
4.	Cloud Database	Database Service on Cloud	IBM DB2
5.	File Storage	File storage requirements	IBM Object Storage
6.	External API-1	Sending email alert	Sendgrid
7.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Cloud Server Configuration : 1vCPU, 1 Cluster, 25 GB Object Storage	IBM Kubernetes Cluster

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	<i>Open-Source Frameworks</i>	<i>Flask</i>	<i>Python</i>
2.	<i>Security Implementations</i>	<i>SSL Certificate</i>	<i>SHA-256, Encryptions</i>
3.	<i>Scalable Architecture</i>	<i>3 – tier Architecture, Micro-services</i>	<i>Kubernetes with Docker</i>
4.	<i>Availability</i>	<i>load balancers, distributed servers</i>	<i>IBM Cloud</i>
5.	<i>Performance</i>	<i>15 connections at a time, 200Mb of Data Storage</i>	<i>IBM Db2</i>